

CONSERVATION *Showcase*



Iowa Farmer Credits USDA Conservation Programs for Small Farm Development

by Jason Johnson, Public Affairs Specialist

October 2012

An operator of a small Woodward farm credits USDA's Natural Resources Conservation Service (NRCS) with helping to raise his business to the "next level." Rick Hornsby says NRCS provided sound conservation planning advice and financial assistance to implement new practices that take advantage of existing resources for water supply and help livestock graze more efficiently.

Rick Hornsby, who is working to become a certified organic farmer, utilized USDA's Environmental Quality Incentives Program (EQIP) to treat several natural resource concerns on his operation. For better forage production and reduced erosion, he implemented a rotational grazing system for a small herd of goats and cows in a multi-paddock system. He also added a seasonal high tunnel to help extend the growing season



Rick Hornsby has been busy over the last few years. He recently installed fencing and reseeded grass for his rotational grazing system, and installed a seasonal high tunnel to grow many varieties of fruits, vegetables, and cut flowers.

and improve plant, soil and water quality for his many varieties of fruits and vegetables.

EQIP is a voluntary conservation program that promotes agricultural production and environmental quality. It offers eligible farmers financial and technical assistance to install or implement conservation practices to treat identified resource concerns on eligible land.

Grazing System

Hornsby says District Conservationist Brad Harrison, with NRCS in Dallas County, helped him and his wife, Jeani, develop their farm operation and conservation plan from nearly nothing to what it is today. In 2010, they started the plan by implementing a small grazing



Rick Hornsby raised seven goats in 2012, and will add cattle to the mix next year. He has a very small pasture area, but is still rotationally grazing the animals to make the best use of his grass.

CONSERVATION *Showcase*

system for a handful of goats and cows. The plan includes fencing, a watering facility, water pipelines, and new forage planting. "We now have a nice rotational grazing system with a newly reseeded pasture that includes a beef mix so we can include cows," said Hornsby. "They will have the right forbs for their nutrition."

Along with better forage production, multi-paddock rotational grazing systems require fewer inputs such as fertilizer, better weed control than continuous grazing, and increased stocking rates. In 2012, Hornsby raised seven goats. He will add cattle to the pasture next year.

One of the most unique aspects of Hornsby's new grazing system is the livestock drinking water source. He is capturing rainwater from the roof of a 10,000 square foot farm building and piping it to his watering tank for the livestock. Even with the dry year, Hornsby only needed water runoff from the building for the goats.

High Tunnel

Water from that building is also used to irrigate growing plants in the Hornsby's seasonal high tunnel. Built in fall 2011, high tunnels are more like indoor gardens than greenhouses. The Hornsbys offset the cost of their new high tunnel through a special EQIP initiative called the Seasonal High Tunnel Initiative.

Recently, Iowa State University Extension specialists developed a system to collect rainwater from high tunnels by installing gutters at the time of construction. Gutters help collect the rainwater and reduce water runoff and potential puddling.

The Hornsbys grow organic blueberries, strawberries, green beans, cucumbers, squash, peppers, zucchini, peas, lettuce, cut flowers, and many varieties of tomatoes in their 1,920 square foot high tunnel. Hornsby is ecstatic with the way his high tunnel turned out. His first-year successes include:

- » Extending the growing season six weeks ahead of normal outdoor spring planting. "In the future we expect to extend the growing season in the fall as well," said Hornsby, "but we experienced a record low of 23 degrees on Oct.

6 and lost most plants in the high tunnel."

- » Planting fruits and vegetables on dirt mounds to reduce soil compaction for better root growth.
- » Developing an irrigation system that saved them money on rural water use.
- » Successfully marketing their products to a vendor who sold them at the Ames Farmers Market.

It wasn't a perfect season for the Hornsbys, though. Rick says he learned a few lessons and will make some changes:

- » To get irrigation water to run out of the PVC pipe, they needed to manually lift the pipe. Next year they will install a pressurized pumping system so less time and maintenance is needed for watering. "We will continue to catch rainwater from that roof, store it there and pressurize it using a shallow well pump," said Hornsby.
- » Rick said pests became an issue and even ruined their cucumber and squash crops early in the season. Bt, a natural pest control agent, eventually fixed the pest problem, but Rick says being more proactive in eliminating insects next year will be key.
- » Spacing between rows became a problem,



The Hornsbys used rainwater runoff from an old mushroom factory roof on their farm to irrigate their high tunnel crops. They drilled holes in half-inch PVC pipe to allow water out.

CONSERVATION *Showcase*

particularly with tomato plants. Next year he plans to place tomatoes in every other row to allow for more space between produce.

Marketing is Critical

Rick Hornsby's advice for any aspiring local growers – be an “equally good marketer of goods as you are a grower.” He says the market is excellent for high tunnel growers because it allows for an extra month before and after a typical outdoor growing season.

“Listen to what your customers say,” said Hornsby. For example, the Hornsbys made mid-season planting changes to their tomatoes. Customers loved the bit-sized cherry tomato medleys, so they grew and sold more of them. “People eat them like candy,” said Hornsby.

High Tunnels in Iowa

Since 2010, NRCS has provided technical and financial assistance through EQIP in the construction of 172 high tunnels throughout Iowa totaling \$687,145.



Rick Hornsby holds a popular cherry tomato. He says they are very popular among farmer's market customers.